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LATE SCHOOL ENTRANCE, SOCIAL ACCEPTANCE, AND CHILDREN'S
SCHOOL ACHIEVEMENT.

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TEST, SYRACUSE SCALE FOR SOCIAL ACCEPTANCE, MCGUIRE WHITE
SOCIOECONOMIC INDEX, TALLAHASSEE, FLORIDA

LATE SCHOOL ENTRANTS WERE SELECTED AND MATCHED WITH
EARLY SCHOOL ENTRANTS ON THE BASES OF AGE, IQ, SEX,
SOCIOECONOMIC STATUS, AND CLASSROOM. IN ADDITION, LATE SCHOOL
ENTRANTS WERE SELECTED FROM THE SAME GRADE RANGES FROM ALL
LATE SCHOOL ENTRANTS IN THE COUNTY AND COMPARED WITH THE SAME
NUMBER OF RANDOMLY SELECTED EARLY SCHOOL ENTRANTS FROM ONE
REPRESENTATIVE SCHOOL. THESE MATCHED AND UNMATCHED GROUPS
CONSTITUTED 280 SUBJECTS AND WERE ADMINISTERED 2 FORMS OF THE
METROPOLITAN ACHIEVEMENT TESTS, THE PINTNER GENERAL
INTELLIGENCE TEST, THE SYRACUSE SCALE FOR SOCIAL ACCEPTANCE,
AND THE MCGUIRE-WHITE SOCIOECONOMIC INDEX. LATER IN THE YEAR,
ALTERNATE FORMS OF THE METROPOLITAN ACHIEVEMENT TEST AND THE
SYRACUSE SCALE OF SOCIAL RELATIONS WERE ADMINISTERED TO ALL
SUBJECTS. THE RELATIONSHIP BETWEEN SOCIAL ACCEPTANCE AND
ACHIEVEMENT PROGRESS WAS TESTED BY THE SPEARMAN RANK ORDER
CORRELATION METHOD. RAW SCORES WERE CONVERTED TO GRADE
EQUIVALENTS AND AVERAGE MONTHLY GAINS WERE COMPUTED. RESULTS
OF THE STATISTICAL ANALYSIS SHOWED EVIDENCE THAT LATE SCHOOL
ENTRANTS MADE SOMEWHAT GREATER ACHIEVEMENT PROGRESS THAN
EARLY SCHOOL ENTRANTS. IN ADDITION, NO SIGNIFICANT
RELATIONSHIP WAS FOUND BETWEEN SOCIAL ACCEPTANCE AND SCHOOL
ACHIEVEMENT. (GC)

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LATE SCHOOL ENTRANCE, SOCIAL ACCEPTANCE AND CHILDREN'S SCHOOL ACHIEVEMENT

by

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The research reported herein was performed pursuant to a contract with the United States Office of Education, Department of Health, Education and Welfare.

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LATE SCHOOL ENTRANCE, SOCIAL ACCEPTANCE AND CHILDREN'S SCHOOL ACHIEVEMENT

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In the first part of this continuing study of children's school mobility (USOE Grant No. 457(7795)) entitled "Late School Entrance and Children's Adjustment" the present investigator recognized the great mobility of the public school population of the nation and studied the social-emotional adjustment of the child who enters the classroom late in the school year. In that study the problem of late school entrance was demonstrated by the statistics on school mobility in Florida as an example of extreme conditions in one state. In the 1955-56 school year, 21,349 inter-county changes were made in Florida while a total of 54,736 new arrivals from other states were reported in the schools. It was then shown that approximately 13% of all the children in Florida's public schools changed schools during the year. More recent statistics from the 1956-57 school year showed 23,519 inter-county changes and 63,604 new arrivals from other states. Therefore, approximately 11% of the 823,759 children in Florida's public schools changed schools during the 1956-57 school year. In the 1957-58 school year the total number of late comers to schools in Florida amounted to 89,359, which was about 10% of the total school population.

The total mobility figures (4) for the United States over the past decade suggest that some 19-20% of our civilian population over one year of age has moved into a different house each year. Therefore, other states and communities are presented with problems similar to those of Florida for which promise of any appreciable and immediate change appears remote.

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In part I of this study it was found that late school entrants suffered a major social adjustment handicap by being among the children in their groups with lowest social acceptance. This second part of the continuing project was designed to explore the relation between progress in academic achievement in the school and late school entrance; also, the relation between social acceptance and school achievement of both late entrants and early (September) entrants was tested. Late school entrance, November 23, 1958, through February 13, 1959, and social acceptance in April, 1959, served as the independent variables. The dependent variable in this study was the school achievement scores on standardized achievement tests. The starting date of November 23, 1958, was near the beginning of the winter tourist season when late school entrants arrived in large numbers. It also marked the beginning of the third six-week school reporting period for teachers.

THE LITERATURE AND THE PROBLEM

School Achievement and Late School Entrance

Evidence bearing directly on the problem is rare. Kopp's small volume titled Elementary School Transfer (10) gives some attention to problems of curriculum centering around the "transfer" child. The social adjustment struggle of the newcomer as demonstrated in Part I of this study may well produce some gross interferences with school achievement. Schools may see fit to make program adjustments for newcomers when a more precise examination of effects of late school entrance has been made.

The literature of educational and child psychology is replete with evidence on environmental correlates of intelligence and school achievement. However, the immediate psychological effects of changing schools appear to have escaped careful attention. Downie (5) showed that children in a north-western boom-town who had moved their residences frequently made intelligence

test scores quite comparable to those made by children who had been in continuous residence. Also, mobility was associated with some positive effects on social acceptance if the child had been in the new setting for two or three years. However, that study failed to examine either immediate or long-range effects of mobility on school achievement. Smith (17) also reported a slight but insignificant relationship between the number of places in which a person had lived and intelligence test scores.

Selective factors associated with mobility are often used in explanation. Beach and Beach (1) reported an average school retardation of about one-third of a year and scholarship somewhat below average in a group of children in one-hundred transient families. Curtis and Greene (7) reported lower achievement test scores for children of agricultural migrant workers. Schorr's study (15) of 122 mobile families in a southern Ohio defense-plant town presented optimistic conclusions by indicating that cohesiveness and resilience were a characteristic feature of these families.

Although the related research offers most inconclusive evidence on the problem, it has lead to formulation of the major hypothesis of this project which was: school achievement over the short period of the school year will suffer due to late entrance to school.

School Achievement, Social Acceptance, and Late School Entrance

Social-emotional adjustment was explored in part one of this study; the most striking result reported was the very considerable handicap in social acceptance suffered by the late school entrants. Scores derived from personality tests as well as teacher's ratings on problem behavior were not unlike those gained by the early entering children. However, academic achievement, like social acceptance, often appears to be a function to some extent of the particular school and should, therefore, reflect the penalty on the

newcomer who must make academic as well as social adjustment. Difficulties caused by changes in schools during the year are issues of first hand acquaintance to teachers whose classroom goals and procedures may only slightly resemble those of the child's earlier school.

A positive relationship between social acceptance and school achievement has been generally reported in school groups. Klausmeier (9) in a study of correlates of high and low achievement reported that children in the "high achievement" groups in the classroom had higher mental ages, a lower incidence of behavioral problems, and were of higher social-economic status. Bedolian (2) found that the socially "over-accepted" pupils made higher mental health scores than did the "under-accepted" pupils. Wartime studies of displacement and repatriation quite generally showed decreased productivity in their jobs by displaced persons both during displacement and repatriation. Shils (16) suggested that the displaced person's loss of contact with his accustomed affection-providing institutions and relationships served to interfere in almost every daily function of the person. The newcomer to the classroom must also relinquish certain of his affection-providing and his old status-providing institutions and seek new ones. Herberg (8) discussed the task of the newcomer to the New York garment industry and the problem situations he endured as he struggled with the in-group ethnic "clannishness" of the old-timers who were better established and who might erect obstacles to advancement for him. Ethnic newcomers were frequently made the object of stereotypes such as lazy, bad, selfish, etc.

In a paper on group dynamics of the classroom Trow, et al (17) pointed out that school success and failure may be interpreted as products of group relationships. Attitudes gained by children have their anchorage points within the group; cliques and small groups within the room may regulate in

large measure the conduct and beliefs of children; highly cohesive groups are more likely to maintain their efforts in striving toward group goals than are groups of low cohesiveness. Bell (3), in discussing correlates of anomie among young adults, emphasized social isolation, that persons most isolated are less likely to hold group goals than are those persons who have a high participation rate in the activities of the group or community. The entire teaching process might well be facilitated or impaired by the group structure inasmuch as communication is so emphatically but delicately a part of the classroom routine. Larsen and Hill (11) demonstrated that the more stable and firm social structures would exert the greatest influence on interpersonal communication between group members. Newcomers may well be out of the communication channel.

Curtis and Greene (7) have reported data on children of agricultural migrant workers indicating that their average school attendance was far below that of the non-migrants, that their scores on intelligence and achievement tests were lower than those of non-migrants, and that their problem check list scores were higher.

The evidence appears to be far more than suggestive in regard to the effects of late school entrance on children's school achievement. It would appear that these effects will be experienced by the newcomer as he strives to adjust to a new group and its goals, by the old-timers who may see a cohesive group disrupted by the untimely arrival of many new children, and by the teacher who must strive to maintain a social climate incorporating goals and motives shared by both old-timers and newcomers. Therefore, the second problem to be investigated concerns the relation between social acceptance of late school entrants and their school achievement.

Specific Hypotheses

The general hypothesis tested was that late entrants to the public school classrooms (November 23, 1958, through February 13, 1959) would be handicapped in school achievement and would fail to make the progress made by a matched control group from the early entrant (September) group. The specific hypotheses investigated as outlined in Appendix A of the original contract were:

A. Late school entrants will make less average monthly school progress as measured by standardized achievement tests than will a matched control group of early entrants from each's entry date to his school, through April 21-24, 1959 when the final achievement tests were administered.

B. Late school entrants' social acceptance scores will be positively related to their academic achievement scores at the end of the school year. The same relationship will prevail for the control group.

C. Progress in school achievement among early school entrants during the year will be greater in classes with fewer new entrants than in classes with greater numbers of new entrants because lack of group cohesiveness in classes with many newcomers will impair the learning efficiency of the early school entrants.

D. When the effects of intelligence have been controlled, late school entrance and low social status will have the combined effect of producing low school achievement progress scores. Early school entrance and high social acceptance will produce the greatest gains in achievement test scores.

PROCEDURE

Subjects

In order to secure a matched experimental-control group, a total of 53 white public school classrooms, fourth, fifth, and sixth grades in Pinellas County, Florida, was selected for this study. Schools from which classrooms were selected were located in urban areas. For the most part, this selection avoided the migrant worker issue, as no agricultural areas were included. Preceding year enrollments afforded information for selection; increases in enrollment of approximately 17% after schools opened in September, 1958, were expected. St. Petersburg is one of Florida's most popular tourist sites and attracts a large number of newcomers from the north each winter. Inasmuch as the county schools operated an extensive testing program, the choice of Pinellas County for the study was made.

The experimental, or late school entrant group, from the above classrooms included all late school entrants between November 23, 1958, and February 13, 1959, who remained in the classroom through April 27 - May 1, 1959. In order to secure the most comprehensive picture possible of the late school entrants, all late school entrants throughout the county were administered both the Pintner General Intelligence Scale and the Metropolitan Achievement Tests in February, 1959, and were retested with the Metropolitan Achievement Tests in April, 1959. This group, which amounted to 486 in February, had been reduced through school withdrawals and by deletion from the study because of failure to meet other criteria, to only 140 at the April testing.

The subjects were divided into two experimental groups. The evidence regarding the relation of intelligence, sex, age, and socio-economic status to school achievement indicated the desirability of using a matched group as well as a randomly selected group, because assumptions of randomness in selection of subjects from most school groups are difficult to meet. The initial matched experimental group in February consisted of 139 pairs. By the final April testing period, this number had dropped to 47 pairs, due to frequent drop-outs as warm spring weather came and families migrated north. A corresponding matched control group was selected to provide data for comparison with scores of the late school entrants. Matching variables were age, socio-economic status, sex, I.Q., and classroom.

The unmatched experimental group, which in February consisted of the 347 children who were left in the total experimental group after the matched subjects had been selected, dropped to only 93 by the April testing period. To provide a suitable control population for comparison with the 93 unmatched

late school entrants, all fourth, fifth, and sixth graders (from four classrooms of each grade) in one school, chosen by school officials because of its representativeness of the county schools, were also administered the Pintner General Intelligence Scale and the Metropolitan Achievement Tests in October, 1958, and were retested with the achievement test in April, 1959. From these 12 classrooms (approximately 400 pupils), a randomly selected group from each grade was chosen to form the unmatched control subjects.

A major problem encountered in this study was the high frequency of drop-outs among the late school entrant group. The rate of attrition is clearly illustrated by Table 1, which reports the number of pupils tested during the different testing periods.

Table 1

Number of Subjects Tested Throughout Study

	October Controls	February Experimentals	April All Children	Total
Matched Experimentals	-	139	47	286
Matched Controls	139	-	47	286
Total Matched	139	139	94	372
Stratified Experimentals	-	347	93	440
Stratified Controls	420	-	93	513
Total Stratified	420	347	186	953
Total Subjects	559	486	280	1325

Test Administration

To test the several hypotheses centering on the late school entrant's progress in school achievement, the Metropolitan Achievement Tests (13) and the Pintner General Intelligence Test (14) were administered to both the matched late school entrants and the matched control group, to the larger

unmatched late entrant group, and to the large control group. The Metropolitan Achievement Tests and the Pintner Intelligence Tests were chosen because they were currently being used in the regular testing program in the schools of the county and because of their proven effectiveness in measuring school achievement and intelligence.

1. The test administration schedule was:

- a. October, 1958, (first week) for the controls (early September entrants) and February 16-20, 1959, for late school entrants:

Pintner Reading Content Test (4th grade) and Pintner Intermediate Test (5th and 6th grades).

Metropolitan Achievement Test (Elementary Series, Form A (4th and 5th grades) and Intermediate Series, Form A (6th grade) 1959 editions.

General information sheet (by teacher on all children's first day).

- b. McGuire-White Socio-Economic Index (12) (March, 1959, to all the 53 classrooms furnishing matched experimental subjects).

- c. April 27 - May 1, 1959, final testing. Tests were given to both late entrants and matched early entrants, and also to unmatched late entrants and to the stratified control group:

Metropolitan Achievement Test (Form B), 1959 edition.

Metropolitan (Form Am) given to the stratified controls only.

Syracuse Scale of Social Relations, 1959 (6).

2. Scoring:

The mean scores received on each of the two sections of the Syracuse scales were computed only for the matched experimental and control subjects. Both total and separate achievement (Metropolitan) subtest scores were computed when possible. Progress on achievement tests were computed in average gains per month. Due to scoring practices in the county of summing all language scores, no analysis of language sections was made. Because the elementary test series does not contain a social studies subtest (contained in the intermediate series for end of 5th and for the 6th grade), no analysis

of scores on social studies was made. Therefore, the Metropolitan subtests which were used were: (1) Word Knowledge, (2) Reading, (3) Spelling, (4) Arithmetic Computation, and (5) Arithmetic Problem Solving and Concepts (Arithmetic Reasoning).

All late school entrants were tested in the Finellas County Educational Services testing center in both February and April, whereas early school entrants were tested in their respective schools. The October testing for the early school entrants constituted part of a county-wide, annual testing program. All other testing was done only in connection with this study. It should be noted that Form Am of the Metropolitan Achievement Tests was given to the unmatched control group in April rather than Form B, which was given to the matched experimentals. This procedure was necessary inasmuch as the new edition of Form B tests was not available in sufficient quantity to cover the unexpectedly large group of unmatched controls; the entire 4th, 5th, and 6th grades of one school (12 classrooms) were retested in an effort to obtain a representative control group. Therefore, these children took Form A in October and Form Am in April.

The McGuire-White Index of Social Status in an abbreviated form determining only educational level and occupation of parents was completed by teachers from children's records.

RESULTS

Table 2 presents identifying data covering the number by sex, means, and standard deviations on age and I.Q. of both experimental and both control groups for the two testing periods. It will be noted that the four groups in Table 2 are much alike in terms of descriptive variables. The largest differences occur between the two stratified groups. Table 3 provides descriptive data covering the socio-economic and sociometric status

of the matched groups. It was not feasible to collect similar data for the unmatched groups, nor would it have provided any essential information for this study.

Ages of both experimentals and controls in the matched and unmatched groups are so similar that "t" tests failed to indicate a significant difference. The "t" tests which were run on the descriptive variables are reported in Table 4. Although a significant difference beyond the .01 level was found between the I.Q.'s of both the fifth and sixth graders in the unmatched group, this was the only point at which a difference of any consequence occurred in either the unmatched or the matched groups with regard to age and I.Q. It is interesting to note that there was a significant difference between the groups on social acceptance only at the sixth grade level, where mean I.Q.'s were higher and where a maturity factor might begin to enter into the social choices.

In order to examine the effects of pupil mobility on school achievement, data were obtained on five achievement subtests of the Metropolitan Achievement Tests administered to both early and late school entrants on the two occasions. Raw scores on each subtest were converted to grade equivalents for both the first and second testing. Means and standard deviations for the first testing are reported in Table 5. Again it will be noted that the control subjects were administered the first test in October, and the experimental subjects were given their first test in February. Therefore, experimental subjects may be expected to have higher mean scores on the first tests. Both the experimental and control groups were administered the second test in April. Means and standard deviations of the grade equivalents for the second testing are reported in Table 6.

Table 2

Number, Means and Standard Deviations on Age and I.Q. of all Control and Experimental Subjects

	N	Boys	Girls	Age (Months) $\bar{X}$	Age SD	I.Q. $\bar{Y}$	I.Q. SD
<u>Matched</u>							
<u>Experimentals</u>							
4th	15	7	8	120.60	6.33	96.27	16.41
5th	15	11	4	131.93	6.59	103.20	16.23
6th	17	7	10	144.66	7.09	106.00	15.78
Total	47	25	22				
<u>Controls</u>							
4th	15	7	8	121.87	9.44	95.07	16.95
5th	15	11	4	133.53	4.67	103.27	14.88
6th	17	7	10	144.47	7.07	105.82	19.88
Total	47	25	22				
<u>Stratified Sample</u>							
<u>Experimentals</u>							
4th	23	11	12	116.74	6.17	110.48	11.29
5th	38	23	15	128.79	4.86	116.40	18.37
6th	32	13	19	142.91	4.44	113.97	19.40
Total	93	47	46				
<u>Controls</u>							
4th	23	11	12	119.66	6.71	107.04	13.25
5th	38	23	15	132.33	6.92	99.37	14.81
6th	32	13	19	143.09	5.53	102.44	14.85
Total	93	47	46				

Table 3

Means and SD's of Social Acceptances and Socio-Economic Statuses

	N	Boys	Girls	M.M.		M.M. Syr.(1)		Syr.(1)		Syr.(2)		Syr.(2)	
				Y	SD	Y	SD	Y	SD	A.R. Y	A.R. SD		
Matched													
Experimentals													
4th	15	7	8	8.80	2.86	2.69		.72		2.99		.73	
5th	15	11	4	8.13	1.06	2.64		.46		2.71		.56	
6th	17	7	10	8.59	2.45	2.61		.53		2.87		.73	
Total	47	25	22										
Controls													
4th	15	7	8	9.20	2.94	2.86		.87		2.95		.99	
5th	15	11	4	8.66	1.47	2.82		.93		3.17		1.00	
6th	17	7	10	8.53	2.00	3.13		.96		3.26		.82	
Total	47	25	22										

* Syracuse Scale scores

** McNaire-White scores

Table 1
t-Tests on Age, I.Q., Social-Acceptance, and Socio-Economic Status

	df	Age	I.Q.	M.M.	Syracuse 8(1)	Syracuse A.R.(2)
<u>Matched</u>						
<u>Experimental and Control</u>						
4th	14	.61	.95	1.80	.59	.12
5th	14	.92	.06	1.47	.75	1.84
6th	16	.16	.22	.12	2.17*	1.58
<u>Stratified Sample</u>						
<u>Experimental and Control</u>						
4th	22	1.60	.99			
5th	37	2.58	4.48**			
6th	31	.15	2.99**			
<u>Controls (October Testing)</u>						
4th						
5th						
6th						

* less than the .05 level (means and SD's are presented in Table 3)
** less than the .01 level

Table 5
Means and Standard Deviations for Grade Equivalents on 5 Achievement Subtests—First Testing

	Word Knowledge		Reading		Spelling		Arithmetic Computation		Arithmetic Reasoning	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
MATCHED										
Experimentals (February testing)										
4th	4.30	1.45	4.05	1.45	3.81	1.88	4.35	.62	4.09	1.33
5th	5.03	1.86	5.16	1.86	5.25	1.49	5.31	.42	4.54	.95
6th	6.36	1.78	6.65	2.11	6.28	1.81	6.44	1.21	6.14	1.28
Controls (October testing)										
4th	3.50	.70	3.63	1.20	3.21	1.24	3.79	1.01	3.75	.90
5th	5.58	1.80	6.02	1.86	5.21	1.82	5.39	.98	5.80	1.47
6th	6.56	2.20	6.09	1.79	5.58	1.46	6.21	1.03	6.23	1.29
STRATIFIED SAMPLE										
Experimentals (February testing)										
4th	4.77	1.51	5.20	2.15	4.96	1.35	4.67	.59	4.79	1.15
5th	6.43	1.93	6.58	1.73	6.16	1.53	5.05	.76	5.57	1.17
6th	6.86	2.18	6.77	2.37	6.74	2.06	6.86	.94	6.57	1.30
Controls (October testing)										
4th	4.14	1.31	4.24	1.21	4.48	1.01	4.27	.69	4.03	.87
5th	4.88	1.63	5.17	1.98	4.86	1.39	5.12	.85	5.03	1.08
6th	5.39	1.59	5.46	1.53	5.61	1.58	6.11	1.10	5.95	1.75

Table 6
Means and Standard Deviations for Grade Equivalents on Achievement Subtests for Second Testing in April

		Word Knowledge		Reading		Spelling		Arithmetic Computation		Arithmetic Reasoning	
		$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
MATCHED											
Experimentals											
4th		4.64	1.95	4.38	1.50	4.76	1.92	4.91	.61	4.30	1.33
5th		5.25	2.10	5.18	1.10	5.13	1.74	5.73	.70	5.56	.94
6th		6.74	2.05	6.65	2.12	7.03	1.86	7.19	1.44	6.54	1.25
Controls											
4th		3.81	1.03	3.88	1.42	3.96	1.58	4.86	1.37	4.39	1.17
5th		6.64	2.05	6.12	1.82	5.29	1.62	5.85	.94	6.03	1.72
6th		7.11	2.17	6.88	2.29	6.89	2.09	6.93	1.46	6.66	1.87
STRATIFIED SAMPLE											
Experimentals											
4th		5.15	1.59	4.75	1.47	5.08	1.17	5.32	1.01	5.03	1.23
5th		7.16	2.26	7.25	2.38	7.05	1.98	6.40	.74	6.32	1.13
6th		7.66	2.26	7.85	2.14	7.68	2.01	7.55	1.08	7.39	1.39
Controls											
4th		5.10	1.77	5.10	1.58	5.47	1.30	5.40	1.23	5.00	1.46
5th		5.77	2.00	5.82	2.06	5.31	1.37	6.02	.85	5.89	1.30
6th		7.02	2.26	7.20	2.04	6.47	1.96	6.63	1.59	6.58	2.04

Table 7

Means and Standard Deviations on 5 Subtests for Average Monthly Achievement Gains*

	Word Knowledge		Reading		Spelling		Arithmetic Computation		Arithmetic Reasoning	
	$\bar{Y}$	SD	$\bar{Y}$	SD	$\bar{Y}$	SD	$\bar{Y}$	SD	$\bar{Y}$	SD
<u>Matched</u>										
<u>Experimental</u>										
4th	.20	.31	.16	.28	.13	.36	.31	.18	.07	.25
5th	.30	.35	.33	.43	-.07	.59	.23	.38	.55	.60
6th	.33	.51	-.07	.41	.30	.40	.44	.42	.19	.41
<u>Control</u>										
4th	.04	.10	.08	.13	.12	.11	.18	.14	.11	.09
5th	.17	.15	.03	.15	.02	.25	.08	.08	-.04	.17
6th	.10	.12	.03	.36	.23	.18	.10	.15	.002	.25
<u>Stratified Sample</u>										
<u>Experimental</u>										
4th	.18	.45	-.22	.53	.59	.22	.38	.31	.13	.44
5th	.44	.52	.41	.55	.44	.68	.42	.38	.36	.37
6th	.38	.46	.52	.57	.45	.47	.39	.39	.40	.53
<u>Control</u>										
4th	.15	.12	.14	.52	.16	.11	.19	.13	.16	.14
5th	.15	.15	.11	.16	.07	.13	.15	.32	.14	.12
6th	.27	.22	.29	.22	.14	.62	.08	.15	.08	.19

* Standard deviations larger than means occurred as a result of both positive and negative gains with a great deal of variability in either direction.

Before making the final conversion to grade equivalents, it was necessary to make different conversions of the raw scores within several groups in order that all the raw scores would have a similar meaning. Because Form B of the Metropolitan was administered to the experimental subjects and to the matched control subjects in the April testing and Form An to the stratified controls, it was necessary, before assigning grade equivalents, to convert these raw scores to Form A raw score equivalents by means of a standardized conversion table supplied by the test publisher. This conversion permitted the computation of progress scores. Another conversion was performed on only the fifth grade control groups; the Metropolitan testing schedule advised that the elementary form be given to the fifth grade at the beginning of the year but that the intermediate form be given if the testing is being done near the end of the fifth year. Therefore, the control subjects tested in October were administered the elementary form, but were given the intermediate form in the April testing. The experimental subjects were administered the intermediate form in both the February and April testing. It was thus necessary to convert the fifth grade scores for the first testing to intermediate Form A equivalents by means of a standardized conversion table provided by the publisher before the second conversion to grade equivalents could be made. Thereafter, testing of the several hypotheses was possible.

1. The first hypothesis investigated referred to the effect of late school entrance upon school achievement: late school entrants will make less school progress as measured by standardized achievement tests than will a matched control group of early entrants from their respective dates of school entry to April 27 - May 1, 1959.

To test this hypothesis, the average monthly gain in grade equivalents was computed for both groups on each of the five subtests. This operation

was accomplished by finding the difference in months between the first and second testing and dividing each child's obtained difference by the number of months between testings.

Means and standard deviations of the average monthly gains for the five achievement subtests for both the matched and stratified samples are reported in Table 7. Matched "t" tests were run between the experimental and the control groups on all five achievement subtests; the results are reported in Table 8. It will be observed that the difference between the means on the word knowledge subtest yielded a "t" of 2.57, which is

Table 8

"t" Tests for Average Monthly Gains for Matched Experimental and Control Groups
(Means and SD's in Table 7)

Sub-Test	df	"t"
Word Knowledge	34	2.57 *
Reading	34	1.30
Spelling	34	.07
Arithmetic Computation	34	3.50 **
Total Arithmetic	34	1.60

* less than the .05 level

** less than the .01 level

significant beyond the .05 level. The difference between the means on the arithmetic computation subtest resulted in a "t" of 3.50, which is significant beyond the .01 level. The results showed that the late school entrants made significantly greater progress on both the word knowledge and the arithmetic computation subtests as revealed by average monthly gains. It can also be seen in Table 7 that the experimental subjects demonstrated greater average monthly achievement gains on the other three achievement subtests, although these differences did not attain statistical significance.

Other statistical analyses directly related to this hypothesis were completed on the April grade equivalent achievement scores. Table 9 lists the results of "t" tests for the matched experimental and control groups on the

Table 9

t-Tests of Grade Equivalents on 5 Subtests for April Scores
for Matched Experimentals and Controls
(Means and SD's in Table 6)

	df	Word Knowledge	Reading	Spelling	Arithmetic Computation	Arithmetic Reasoning
4th Grade	14	1.93	1.03	3.29 **	.35	.31
5th Grade	13	1.15	1.36	.33	.55	1.27
6th Grade	16	.85	.49	.29	1.13	.35

** less than the .01 level

April grade equivalents. The difference between the means on the spelling subtest for the 4th grade yielded a "t" of 3.29, which is significant beyond the .01 level. The matched experimental group demonstrated a higher level of achievement on the spelling subtests (as shown in Table 6), but in general the results of this analysis were not decisive. As can be seen in Table 6, the mean differences between the two groups reflected no consistent trend, and none of the mean differences attained significance except on the spelling subtest.

An analysis of the April grade equivalents was also completed on the stratified experimental and control groups by means of "t" tests, and the results are reported in Table 10. It will be observed that there were no significant differences between the 4th grade stratified control and experimental groups on the five achievement subtests. In the 5th grade, the differences between the experimental group and the control group were beyond the .01 level on the word knowledge, reading, and spelling subtests.

Table 10

t-Tests of April Grade Equivalents on 5 Subtests for Stratified (Random) Groups
(Means and Standard Deviations appear in Table 6)

Grade	df	Word Knowledge	Reading	Spelling	Arithmetic Computation	Arithmetic Reasoning
4th	40	.43	1.36	1.28	.56	.39
5th	64	3.50**	3.89**	4.03**	1.59	1.63
6th	54	.68	.97	2.10*	2.53*	1.48

** less than the .01 level

* less than the .05 level

In the 6th grade, the difference between the two groups was beyond the .05 level of significance on the spelling and arithmetic computation subtests. In looking at the means and standard deviations for the April grade equivalents in Table 6, it can be seen that the experimental group (late entrants) achieved higher grade equivalents. However, since these groups were not matched for I.Q., it was felt that the effect of this variable should be considered in the treatment of the data. Table 4 shows that there were significant mean differences on I.Q. in both the 5th and the 6th grades, but there was no significant difference between the means of the 4th graders. The differences indicated that the experimental or late entrant group had a higher mean I.Q. To control the effects of intelligence, an analysis of covariance was run on the April test data between the stratified groups for the 5th and 6th grades; results are reported in Table 11. The uncontrolled

Table 11

Analysis of Covariance of Grade Equivalents for
April Scores on 5 Achievement Subtests for Stratified (Random) Groups *

<u>"F" ratios</u>						
	df	Word Knowledge	Reading	Spelling	Arithmetic Computation	Arithmetic Reasoning
5th grade	1 and 63	.04	.16	1.72	1.93	2.92
6th grade	1 and 53	3.85	.51	.44	.92	.11

* a simple "t" was run on the 4th grade; see Table 10

predictor variable in this analysis was I.Q. and the dependent variable was grade equivalent scores on the achievement subtests. None of the 7 ratios in Table 11 for the adjusted values was significant, suggesting that the significant differences between the two groups on the achievement subtests might be accounted for by the variable, I.Q.

Although the analysis of the data failed to support the original hypothesis, the results were not completely decisive. The data suggested that the late school entrants made greater school progress as measured by average monthly gains on the achievement subtests than did the early school entrants. Analysis of the difference in grade equivalents between the two groups also failed to support the hypothesis and instead supported the contention that there is no difference between early and late entrants in achievement when other related variables are controlled.

2. The second hypothesis was concerned with the relationship between social acceptance and academic achievement: both late and early school entrants' social acceptance will be positively related to their academic achievement.

In order to test this hypothesis, Spearman rank order correlation coefficients were run between the average monthly gains on the achievement subtests and social acceptance as measured by the Syracuse scale of social relations. Only the matched experimental and control groups were used in this analysis, because social acceptance scores were not available for the unmatched groups. The results of this analysis are reported in Table 12. Only one significant correlation was found. There was a significant positive relationship at the .05 level between the succorance social acceptance scale and the arithmetic computation subtest for the data from the control group. Inasmuch as this was the only significant relationship out of 20 correlation coefficients, it would be rather tenuous to interpret the results as supporting the original hypothesis. Because 20 correlations

were run on these data, one might legitimately expect one chance significant relationship. It is concluded that the analysis of the data did not support the original hypothesis.

Table 12

Rank Order Correlations for Matched Experimentals and Controls Between (1) Successance and (2) Achievement Recognition as Measured by the Syracuse Scale and Achievement as Measured by the Metropolitan Achievement Subtests

	N=35				
	Word Knowledge	Reading	Spelling	Arithmetic Computation	Arithmetic Reasoning
Experimental					
(1) Successance	.167	-.142	+.154	.123	.139
(2) Achievement Recognition	.343	-.283	-.149	.243	.035
Control					
(1) Successance	-.031	-.071	.102	.386 *	.108
(2) Achievement Recognition	-.076	.044	.134	.292	.085

* less than the .05 level

3. The third hypothesis bears on the effects of new children coming into a classroom on achievement progress of the early school entrant group: progress in school achievement among early school entrants (September) during the year will be greater in classes with fewer new entrants than in classes with greater numbers of new entrants.

In order to test this hypothesis, the classrooms were placed in one of three groups, depending upon the number of late entrants reported in the class. Those classes with ten or more late entrants were grouped together and were referred to as the "high transiency" group. Classrooms having seven to nine late school entrants were placed in the "middle transiency" group, and classrooms having six or fewer late school entrants were referred to as the "low transiency" group. The boundaries for these three groups were arbitrarily set to divide the number of classrooms into three equal groups.

Control subjects (early school entrants) who had been administered the Vinland and the Metropolitan were selected from each classroom and constitute the sample for this analysis.

Because intelligence appears to be highly related to achievement, a preliminary analysis of I.Q. differences was completed on the three transiency groups.

Means and standard deviations of I.Q. for the three groups are reported in Table 13. It can be seen that these values were quite similar for the three groups. A one-way analysis of variance was completed in order to ascertain if there were any significant differences between the three groups. This analysis, also reported in Table 13, revealed no significant differences between the groups. Hence, these differences were not significant, and a one-way analysis of variance was not conducted in subsequent analyses.

Means and standard deviations for the average monthly gains on the five achievement tests for the three transiency groups are reported in Table 14. An analysis of variance between the three groups was performed on each of the five achievement tests and the results are reported in Table 15.

Means and standard deviations for average monthly achievement gains for the three transiency groups (Group of early school entrants)

Table 13

Means and Standard Deviations of Intelligence for the Three Transiency Groups

	High Transiency Group 10+ Newcomers	Middle Transiency Group 7-9 Newcomers	Low Transiency Group 0-6 Newcomers
Mean	102.19	103.18	104.64
Standard Deviation	14.24	15.90	15.44

Analysis of Variance Between the Three Transiency Groups				
Source of Variation	SS	df	Mean Square	F
Between Groups	80	2	40.00	
Within Groups	19,548	84	227.30	
Total	19,628	86		

Control subjects (early school entrants) who had been administered the Pintner and the Metropolitan were selected from each classroom and constitute the sample for this analysis.

Because intelligence appears to be highly related to achievement, a preliminary analysis of I.Q. differences was completed on the three transiency groups. Means and standard deviations of I.Q. for the three groups are reported in Table 13. It can be seen that these values were quite similar for the three groups. A simple analysis of variance was completed in order to ascertain if the overall difference between the three groups was significant. This analysis, also reported in Table 13, revealed no significant differences between the groups. Because these differences were not significant, a simple analysis of variance and "t" tests were used in subsequent analyses.

Means and standard deviations for the average monthly gains on the five achievement subtests for the three transiency groups are reported in Table 14. An analysis of variance between the three groups was performed on each of the five achievement subtests and the results are reported in Table 15.

Table 14

Means and Standard Deviations for Average Monthly Achievement Gains for Transiency Groups (Scores of early school entrants)

	Word Knowledge		Reading		Spelling		Arithmetic Computation		Total Arithmetic	
	X	SD	X	SD	X	SD	X	SD	X	SD
High	.32	.16	.74	.18	.60	.17	.25	.12	.46	.14
Middle	.27	.17	.67	.19	.48	.15	.28	.16	.44	.18
Low	.24	.12	.72	.19	.53	.16	.26	.11	.45	.10

Table 15
Analysis of Variance of Average Monthly Gains on Five Achievement Subtests for the Translucency Groups

Word Knowledge			Mean Square	F
Source of variation	SS	df		
Between Groups	.1024	2	.0512	2.0398
Within Groups	2.0600	83	.0251	
Total	2.1624	85		
Reading			Mean Square	F
Source of variation	SS	df		
Between Groups	.0696	2	.0348	.9255
Within Groups	3.1202	83	.0376	
Total	3.1898	85		
Spelling			Mean Square	F
Source of variation	SS	df		
Between Groups	.1918	2	.0959	3.5519 *
Within Groups	2.2390	83	.0270	
Total	2.4308	85		
Arithmetic Computation			Mean Square	F
Source of variation	SS	df		
Between Groups	.0124	2	.0062	.3584
Within Groups	1.4553	84	.0173	
Total	1.4677	86		
Total Arithmetic			Mean Square	F
Source of variation	SS	df		
Between Groups	.0023	2	.0012	.0526
Within Groups	1.9165	84	.0228	
Total	1.9188	86		

* less than the .05 level

An overall significant difference beyond the .05 level was found on only the spelling subtest. In order to determine where the significance lay, "t" tests were completed between the three groups and are reported in Table 16. The "t" test revealed that the mean difference between the high and middle transiency groups was significant at the .01 level. "t" tests between the high and low and middle and low did not yield significant differences.

Table 16

"t" Tests of Spelling Subtest Data
for Transiency Groups

Groups	df	"t"
High and Middle	57	2.86 **
High and Low	56	1.59
Middle and Low	53	1.19

** less than the .01 level

The data did not offer sufficient support of hypothesis 3 to make rejection of the null hypothesis plausible. Only one overall significant difference was found in the analysis of the five subtests. A closer look at the means within the spelling subtest indicated that early school entrants in classrooms with high transiency rates made greater progress than those in the other two groups. Looking at the other means of the five subtests, it can be seen that the high transiency groups tended to have greater progress on the achievement tests, although these differences did not achieve statistical significance.

4. Hypothesis 4 was concerned with the interaction of late school entrance and social acceptance, and its effect upon achievement progress: late school entrance and low social status will have the combined effect of producing

low achievement progress scores. Early school entrance and high social acceptance will produce the greatest gains in achievement test scores.

In order to test this hypothesis, children in the matched groups only were assigned to the appropriate group according to level of social status. Social status was measured by scores on the achievement-recognition scale of the Syracuse social acceptance scale. The achievement-recognition criterion appeared to most closely approximate the social choice criterion of a sociometric test on which late entrants could first be expected to be chosen (16). Three levels of social status were determined on the 8-point scale of this instrument. Children having a score of 2.5 or less were assigned to the low social status group. Children who had a score of 2.6 to 3.4 were placed in the middle social status category, and children with a score of 3.5 or more were placed in the high social status category. The cutting points approximated the 33rd and 66th percentiles.

The minimum possible score on the Syracuse scale is 1, which indicates extremely low social acceptance, and the maximum score is 8, reflecting extremely high social acceptance. The range for the children in this study on achievement-recognition was 1.2 to 5.1. A plot of scores suggested a tendency toward a bimodal distribution with high frequencies at approximately 2.2 to 2.3 and at 3.4 to 3.5.

Inasmuch as the data did not meet the assumptions of the parametric statistical techniques, a distribution-free analysis of variance was employed. This procedure, developed by Kellogg Wilson (20), is based on the Chi square analysis technique in which the overall median of the dependent variable is found and the subjects are then divided into two groups, above and below the median. Subjects are then assigned to the

the appropriate Chi square cells in contingency tables on each side of the median, and the frequencies within the cells are used for subsequent analysis. The basic procedure involves finding the difference between the obtained and expected frequencies and the levels of significance are determined by comparing with the cumulative Chi square distribution for the appropriate degrees of freedom.

Achievement progress scores on each subtest were classified as above the median or below the median. The variables defining the cells in this analysis were early and late entrance to the classroom, and high, middle, and low social status, resulting in a 2 by 3 contingency table. Results of this analysis are reported in Table 17.

Table 17

Distribution Free Analysis of Variance of the Effects of Late School Entrance and Social Acceptance on Achievement Progress of Children in Matched Experimental-Control Groups

	Achievement Subtest					df
	Word Knowledge	Reading	Spelling	Arithmetic Computation	Arithmetic Reasoning	
Chi Square Total	10.143	7.45	10.92	17.58 **	7.21	5
Chi Square Rows: Effect of Social Acceptance	3.04	1.37	2.69	2.44	5.58	2
Chi Square Columns: Effect of Late School Entrance	5.40 *	1.56	.78	14.14 **	2.38	1
Chi Square Interaction: Combined Effects of Late School Entrance and Social Acceptance	1.70	4.52	7.45 *	1.00	—	2

* less than .05

** less than .01

This analysis was employed in treating the data from all five achievement subtests.

For the word knowledge subtest, the Chi square for the effect of late school entrance was significant at the .05 level. A close inspection of the contingency table which is included in Table 18, revealed that a large percent of the late school entrants scored above the median whereas a large percent of the early entrants scored below the median, which is a contradiction of the original hypothesis. There was no significant difference between levels of social status. The interaction chi square also was not significant.

No significant differences were found on the reading subtest. The differences, however, appeared to be in the same direction as the word knowledge subtest with a greater proportion of the late entrants falling above the median and a greater proportion of the early entrants falling below. There was no apparent trend within the different levels of social acceptance.

Analysis of the data on the spelling subtest revealed a significant interaction at the .05 level, which suggested that school entrance time and the level of social status may have a significant effect upon achievement progress in spelling. Close examination of the data, however, indicated that this trend might be in contradiction to the original hypothesis. A greater proportion of the late entrants scored above the median, and a greater proportion of the low social status groups also scored above the median. The cell for late entrants with low social acceptance yielded the highest proportion of pupils scoring above the median. There was no significant differences between late and early entrance or social status when analyzed by themselves.

The Chi Square total for the arithmetical computation was found to be significant at the .01 level. Most of the total difference can be accounted for by the effect of delayed entrance into the classroom. The

Table 18

Contingency Tables for the Distribution Free Analysis of Variance
of the Effects of Late School Entrance on Social Acceptance

		<u>Achievement Subtest--Word Knowledge</u>			
	<u>Above Median</u>		<u>Totals</u>	<u>Below Median</u>	
	<u>Late</u>	<u>Early</u>		<u>Late</u>	<u>Early</u>
High Social Acceptance	3	4	7	1	12
Middle Soc. Acceptance	15	3	18	6	6
Low Social Acceptance	6	7	13	6	5
Totals	24	14	38	13	23
<u>Achievement Subtest--Reading</u>					
	<u>Above Median</u>		<u>Totals</u>	<u>Below Median</u>	
	<u>Late</u>	<u>Early</u>		<u>Late</u>	<u>Early</u>
High Social Acceptance	3	10	13	1	6
Middle Soc. Acceptance	11	4	15	11	5
Low Social Acceptance	10	5	15	3	10
Totals	24	19	43	15	21
<u>Achievement Subtest--Spelling</u>					
	<u>Above Median</u>		<u>Totals</u>	<u>Below Median</u>	
	<u>Late</u>	<u>Early</u>		<u>Late</u>	<u>Early</u>
High Social Acceptance	1	11	12	3	5
Middle Soc. Acceptance	13	2	15	10	6
Low Social Acceptance	11	8	19	3	7
Totals	25	21	46	16	20
<u>Achievement Subtest--Arithmetic Computation</u>					
	<u>Above Median</u>		<u>Totals</u>	<u>Below Median</u>	
	<u>Late</u>	<u>Early</u>		<u>Late</u>	<u>Early</u>
High Social Acceptance	5	7	12	0	10
Middle Soc. Acceptance	16	3	19	7	5
Low Social Acceptance	9	3	12	4	13
Totals	30	13	43	11	28
<u>Achievement Subtest--Arithmetic Reasoning</u>					
	<u>Above Median</u>		<u>Totals</u>	<u>Below Median</u>	
	<u>Late</u>	<u>Early</u>		<u>Late</u>	<u>Early</u>
High Social Acceptance	3	7	10	2	10
Middle Soc. Acceptance	15	6	21	6	3
Low Social Acceptance	6	4	10	7	11
Totals	24	17	41	17	24

analysis of the difference between early and late entrants resulted in a Chi square significant beyond the .01 level. An inspection of the data indicated that this difference was in agreement with the analysis on the other tests in that the late entrants had a greater proportion who scored above the median. There was no difference between the three levels of social acceptance.

There were no significant differences found in the analysis of the data on the arithmetic reasoning subtest. The trend, however, indicated that more late entrants scored above the median than the early entrants. The Chi square between the levels of social status did approach significance. The Chi Square value was 5.58 with 2 degrees of freedom. In looking at the data, it was apparent that a greater proportion of the middle social acceptance group scored above the mean. It is interesting to note that a similar trend was apparent for the arithmetic computation subtest, though this did not reach a level of significance.

In examining the analyses of the data for the five subtests, one can readily see that the data did not support the original hypothesis. In fact, the significant trends and possible trends which were evident seemed to be in opposition to the hypothesis. It was strongly suggested that late entrance was associated with greater school achievement progress. It also is interesting to note the possibility that social acceptance as measured by achievement-recognition may tend to be inversely related to achievement progress, although this does not reach the .05 level of significance. This factor could be expected to emerge when early school entrants achieve higher social acceptance scores and late school entrants make higher achievement progress scores (but lower social acceptance scores).

DISCUSSION

The data collected in this study did not offer decisive support of the four hypotheses which were tested concerning the effect of late school entrance on school achievement. (Late school entrance did not appear to be associated with poor school achievement progress, nor does there seem to be a significant relationship between social status and achievement progress. Large numbers of late entrants to a classroom were found to have little effect on the achievement progress of early entrants in the classroom. Finally, the combined effects of social status and late entrance did not appear to produce a deleterious effect on achievement progress.)¹⁹⁷

In considering all of the data, it becomes evident that nearly all the significant differences found suggest trends that are in direct opposition to the original hypotheses. Namely, late school entrance may have a positive effect on achievement progress, and social acceptance may tend to be negatively related to achievement progress. However, the results of the analysis can only be indecisive with respect to describing the individual late school entrant.

Nevertheless, several trends are in evidence which invite further speculation concerning the dynamics of the late school entrance issue. In looking at Table 7, it will be observed that the late entrants demonstrated significantly greater achievement progress in word knowledge and in arithmetic computation than the matched early entrants. Mean differences on the reading, spelling, and arithmetic reasoning were also in the same direction but did not achieve statistical significance.

One possible explanation of why late entrants tend to maintain a comparable rate of achievement with the early entrants, and to some degree even surpass them, may lie in the dynamics of the situation where the late

entrants strive for status through achievement whereas the early entrant group, fairly adjusted to their respective status positions, may not be as strongly motivated to seek new status. Late entrants may find their chief incentive developed through the teacher and in their attempts to seek further status and acceptance by her, quite naturally accept achievement as a means to this end. The reinforcement value of the teacher would seem to be greater because of lack of assimilation into the group. As the early entrant group begins to accept the mobile children into status-providing activities and as the late entrants themselves respond more and more to this acceptance, achievement as a means of recognition may become less a motivational factor than social or group recognition.

What is particularly striking about the late entrant, abruptly uprooted from his familiar and satisfying surroundings and set down in a completely different environment, is that, in spite of all the conjectured handicaps facing him, he is able to move into this new world where strange patterns of culture are operating and not only keep pace with the group into whose unfamiliar milieu he has been thrust, but to some extent surpass them.

In looking at the effect of late entering children upon achievement progress of early school entrants in the same classroom, it is interesting to note that the trend in evidence suggests a positive relationship between the number of late entrants to the class and the achievement progress of the early entrants already in the class. Perhaps the motivation and accomplishment of the late entrants has a stimulating effect upon the progress of early entrants as a result of a feeling of competition. Another explanation might be that a large number of late entrants reduces group cohesiveness, thus increasing the reinforcement value of the teacher for the early entrants, resulting in increased efforts to gain her approval through greater achievement progress.

As a word of caution, it would be derelict for the writer to suggest that all variables operating to produce differences or similarities in the two groups studied were fully controlled. The nature of the late school entrant group which is comprised primarily of pupils of northern families who are vacationing in Florida during the winter months tends to suggest other differences, such as higher socio-economic status and intelligence. Although the study was designed to control for these variables, it is quite probable that other factors related to these and to achievement progress remain uncontrolled.

The impress of an earlier culture, where the general attitude structure and the motivational level of the late school entrants were different, may have a propelling effect, even after the individual has been removed from it. This particular impetus could not be controlled and its force when combined with the psychological need to excel as a means of achieving status may have produced greater changes than anticipated in terms of elevating the achievement scores of late school entrants.

In terms of the four hypotheses, the results were negative. A clinical study of the effects of late entrance, concentrating on individual cases, may well reveal some deficiencies of a "group" approach to the problem.

SUMMARY

This study was conducted for the purpose of investigating the effects of late school entrance on children's school achievement, the effects of the entrance of many new children during the school year on the school achievement of the early or regularly entering children and the relationship of social acceptance to school achievement.

Subjects were 4th, 5th, and 6th grade pupils drawn from 53 white public school classrooms in Pinellas County, Florida. Forty-seven late school

entrants were selected from these schools and matched with 47 early school entrants on the basis of age, I.Q., sex, socio-economic status, and classroom. In addition, 93 late school entrants were selected from the same grade ranges from all late school entrants in the county and compared with 93 randomly selected early school entrants from one representative school. These matched and unmatched groups constituted the 280 subjects used in this study and provided the data upon which all analyses were based.

It was hypothesized that: (1) late school entrants would make less achievement progress; (2) late school entrants' social acceptance scores would be positively related to achievement; (3) achievement progress would be greater in classes with fewer new entrants; and (4) the combined effects of late school entrance and low social acceptance would produce lower achievement progress.

In order to test these hypotheses, all subjects were administered two forms of the Metropolitan Achievement Tests, the Pintner General Intelligence Test, the Syracuse Scale for Social Acceptance, and the McGuire-White Socio-Economic Index. Controls were administered the appropriate grade level forms of the Pintner and the Metropolitan Tests and general information sheets were completed by the teachers in October; late school entrants, or experimental subjects, were given the same tests in February. All subjects in the matched groups were given the McGuire-White Socio-Economic Index in March. From April 27 - May 1, 1959, alternate forms of the Metropolitan Achievement Test were given to all subjects; the Syracuse Scale of Social Relations was also administered at that time.

Achievement data used in testing the hypotheses were taken from five subtests of the appropriate form of the Metropolitan Achievement Tests. These were: word knowledge, reading, spelling, arithmetic computation, and arithmetic reasoning. Raw scores were converted to grade equivalents and average

monthly gains were computed. Differences in progress in school achievement between matched groups of late and early school entrants were tested by means of "t" tests. The relationship between social acceptance and achievement progress was tested by the Spearman Rank Order Correlation Method. The effect of late entering children coming into classrooms upon achievement progress of the early school entrants in the classroom was tested by a simple analysis of variance of achievement progress scores. The combined effects of social acceptance and late entrance was tested by means of a distribution-free analysis of variance technique.

Results of the statistical analyses did not support the hypotheses. There was evidence that late school entrants made somewhat greater achievement progress than early school entrants. In addition, no significant relationship was found between social acceptance and school achievement. Results were discussed and interpretations of the data were offered. A clinical approach to the problem, concentrating on individual cases, is suggested.

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